



Strategic Regional Arterial

U.S. ROUTE 20

**Boone - McHenry County Line
to Randall Road**

VOLUME I

**RECEIVED
FEB 21 2002
C.A.T.S.**



OPERATION GREENLIGHT

Illinois Department of Transportation

Executive Summary

Since the early 1970's, development patterns have reflected a significant migration of people and employment from the City of Chicago to the surrounding suburbs. Though the region's population grew by only 4% during that period, the urbanized area increased by approximately 70%. The new development brought with it dramatically different travel patterns. While the principal transportation systems were designed to efficiently handle traditional suburb-to-city commuting patterns, significant growth occurred in suburb-to-suburb travel. These new travel demands overwhelmed the capacity of many of the region's expressways and arterial streets, causing traffic to spill over into adjacent neighborhoods as drivers sought to avoid congestion. Despite significant investments in transportation improvements over the last two decades, traffic congestion in the Chicago region has increased steadily.

Regional population and employment forecasts imply that even more difficult challenges lie ahead. NIPC has estimated that the region's population will increase as much as 24% between 1990 and 2020 which is four times the growth rate experienced between 1970 and 1990. Employment is expected to increase as much as 37% over the same period. Though growth will continue in the suburbs, significant infill growth is expected to occur in the City of Chicago and inner-ring suburbs as well. If the region's economic vitality and quality of life is to be preserved in the face of this expansion, significant improvements to transportation mobility must be achieved.

Transportation planning agencies have recognized that needed mobility improvements cannot be achieved solely through expansion of the region's expressway system. Thus, they are planning the creation of the Strategic Regional Arterial (SRA) system which is a comprehensive network of 1,390 miles of existing arterial highways in Northeastern Illinois. The SRA system is intended to supplement existing and proposed expressway facilities in accommodating long-distance, high volume automobile and commercial vehicle traffic. In order to meet the objectives of the SRA system, it will be necessary to transform the historic context of these arterial highways to one which emphasizes traffic mobility while still accommodating land access needs.

This report summarizes a planning study conducted for U.S. Route 20. This portion of the U.S. Route 20 study extends from the Boone/McHenry County Line to Randall Road. The study developed a conceptual improvement plan which, when implemented, will improve transportation mobility along the corridor. The study is considered a "pre-Phase I" study, since it may be a number of years before the SRA improvements can be realized. Before constructing these improvements, detailed Phase I engineering and environmental studies as well as Phase II design activities must still be completed. The concept plan is primarily intended to serve as a guide for land use and access

decisions that will be made along the route between now and when an SRA improvement could actually be constructed. It is hoped that the long-range SRA plan for this route will be used by local agencies in their land use planning activities. Only with the support of the communities through which the U.S. Route 20 corridor passes through can the ultimate improvement plan be realized.

The U.S. Route 20 SRA corridor was divided into six segments for the purposes of this study. Following is a summary of the major improvement recommendations within each segment.

Segment 1: Boone/McHenry County Line to Meyer Road

- Widen U.S. Route 20 to provide two 12-foot travel lanes in each direction separated by a 42-foot open ditch median.
- Provide 6-foot inside and 10-foot outside shoulders with an open drainage system.
- Acquire 0 to 47 feet of additional right-of-way along each side of U.S. Route 20.
- Consolidate access to designated channelized intersections and restrict all other driveways to right-in/right-out.
- Signal coordination is recommended.

Segment 2: Meyer Road to Shady Lane

- The recommended Concept Improvement Plan and Access Control Plan for this segment will be determined upon completion of a Marengo Bypass Study to be conducted separately.

Segment 3: Shady Lane to Harmony Road

- Widen U.S. Route 20 to provide two 12-foot travel lanes in each direction separated by a 42 foot open ditch median.
- Provide 6-foot inside and 10-foot outside shoulders with an open drainage system.
- Acquire 20 to 80 feet of right-of-way on the north side and 0 to 54 feet on the south side of U.S. Route 20.
- Consolidate access to designated channelized intersections and restrict all other driveways to right-in/right-out. U-TURN movements will be permitted for passenger vehicles and small trucks at signalized intersections.
- Signal coordination is recommended.

Segment 4: Harmony Road to Interstate 90

- Widen U.S. Route 20 to provide two 12-foot travel lanes in each direction separated by an 18-foot wide barrier median
- Provide 10-foot wide shoulders with an open drainage system.
- Acquire 0 to 27 feet of right-of-way on the north side and 0 to 54 feet on the south side of U.S. Route 20.

- Consolidate access to designated channelized intersection and restrict all other driveways to right-in/right-out.
- Re-align the signalized I-90 access roadway further southeast along U.S. 20.
- Side street improvements are recommended at specific locations.
- Signal coordination is recommended.

Segment 5: Interstate 90 to Illinois Route 47

- Widen U.S. Route 20 to provide two 12-foot travel lanes in each direction separated by a 42 foot open ditch median.
- Provide 8-foot inside and 10-foot outside shoulders with an open drainage system.
- Acquire 0 to 60 feet of right-of-way on the north side and 0 to 47 feet on the south side of U.S. Route 20.
- Re-align Brier Hill Road at Big Timber Road just north of U.S. Route 20 to improve operational safety.
- Re-align Allen Road at U.S. Route 20 to form a "T" intersection and improve operational safety.
- Create overpass for re-alignment of U.S. Route 20 over the I & M Rail Link to the existing IL Route 72 alignment.
- Consolidate access to designated channelized intersections and restrict all other driveways to right-in/right-out. U-TURN movements will be permitted for passenger vehicles and small trucks at signalized intersections.
- Signal coordination is recommended.

Segment 6: Illinois Route 47 to Randall Road

- Widen U.S. Route 20 to provide two 12-foot travel lanes in each direction separated by a 42 foot open ditch median west of Plank Road.
- East of Plank Road, provide two 12-foot travel lanes in each direction separated by a barrier median with curb and gutter.
- Acquire 0 to 60 feet of right-of-way on the north side and 0 to 50 feet on the south side of U.S. Route 20.
- Extend U.S. Route 20 directly from Marshall Road to Switzer Road to improve roadway operations in the Village of Pingree Grove. Requires 160 feet of right-of-way acquisition.
- Partial access permitting only left-in/right-in/right-out movements at Weld Road.
- Consolidate access to designated channelized intersections and restrict all other driveways to right-in/right-out. U-TURN movements will be permitted for passenger vehicles and small trucks at signalized intersections between IL Route 47 and Plank Road.
- Signal coordination is recommended.

